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EXAMINER	
WENDELL, ANDREW	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,038	KENNEDY ET AL.	
	Examiner	Art Unit	
	ANDREW WENDELL	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-6,9,10,12-24 and 26-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6,9,10,12-24 and 26-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-10 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Kennedy, Jr. (US Pat# 6,952,158).

Regarding claim 1, Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources teaches in a method of determining the location of a mobile appliance in a wireless communication system (Fig. 1A) having plural base stations 104a-c (Fig. 1A) and at least one repeater 114a (Fig. 1A) for communicating with the mobile appliance 106 (Fig. 1A), where the wireless communication system has a network overlay geolocation system (Fig. 1A) operably connected thereto, the improvement of determining (identification code) whether a signal received from the mobile appliance by the geolocation system has passed through a first repeater (Sections 0007-0009 and 0039-0040), wherein plural signals are received from the mobile appliance by the geolocation system and the step of determining if one of the plural signals has passed through the first repeater is based in part on a difference between the times of arrival of two of the plural signals at the geolocation system (Sections 0026-0028 and 102-104). In Section 0028, Stein teaches

receiving plurality of signals and using any combination of the signals to do a measurement. It would be obvious that with the plural of signals a combination could be taking two of the signals and doing a measurement of difference between the two signals. Even though it would be obvious, Stein fails to clearly teach step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system.

Kennedy teaches step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system (Col. 1 lines 16-30). Again, it would be obvious that the identified reference signals could be two signals and determining the time differences of arrival between the two signals.

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system as taught by Kennedy into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to determine a mobile device without it having to be in the same communication network and does not need to be synchronized (Col. 2 lines 53-63).

Regarding claim 2, Stein et al. teaches wherein the first repeater is a tethered repeater (Section 0024).

Regarding claim 4, Stein et al. teaches wherein the time difference is approximately equal to a known repeater time delay (Sections 0028, 0045-0047, and 102-104).

Regarding claim 5, Stein et al. teaches wherein the first repeater attaches a tag to the mobile appliance's signal that passes through the first repeater and the step of determining if one of the plural signals has passed through the first repeater is based in part on the geolocation system operating on the tag (Sections 0007-0009 and 0039-0040).

Regarding claim 6, Stein et al. teaches the additional step of determining the location of the mobile appliance base in part on the determination of whether a signal received from the mobile appliance by the geolocation system has passed through the first repeater (Sections 0007-0009 and 0039-0040).

Regarding claim 9, Stein et al. teaches wherein the first repeater attaches a tag to the mobile appliance's signal that passes through the first repeater and the step of determining if one of the plural signals has passed through the first repeater is based in part on the geolocation system operating on the tag (Sections 0007-0009 and 0039-0040).

Regarding claim 10, Stein et al. teaches the additional step of determining the location of the mobile appliance based in part on the determination of whether a signal received from the mobile appliance by the geolocation system has passed through the first repeater (Sections 0007-0009 and 0039-0040).

Regarding claim 36, method claim 36 is rejected for the same reason as method claim 1 since the recited elements would perform the claimed steps.

3. Claims 12, 14-17, 24, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Kennedy et al. (US Pat Appl# 2004/0043775).

Regarding claim 12, Stein et al. teaches a method of determining the location of a mobile appliance in a wireless communication system having plural base stations 104a-c (Fig. 1A) and at least one repeater 114a (Fig. 1A) for communicating with the mobile appliance 106 (Fig. 1A), and a mobile positioning center 130 (Fig. 1A), and wherein the at least one repeater is connected with a communication tether to the base station (Section 0024), and the mobile position center provides mobile information to the geolocation system, the improvement comprising the step of monitoring the communication system with the geolocation system and determining if a target mobile appliance is served (identification code) by the at least one repeater (Sections 0007-0009 and 0039-0040), wherein the geolocation sensors monitor (identification code) the tether (Section 0024) between the at least one repeater and an antenna feed interface for the mobile appliance's signal (Sections 0007-0009 and 0039-0040). Stein et al. fails to teach a mobile positioning center.

Kennedy et al. tasking and reporting method and implementation for wireless appliance location systems teaches a mobile positioning center 150 (Fig. 1).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a mobile positioning center as taught by Kennedy et al. into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to

find geolocation of a mobile appliance that are under different interface protocol standards (Section 0016).

Regarding claim 14, Stein et al. teaches wherein the mobile appliance's signal is a traffic signal (Section 0025).

Regarding claim 15, Stein et al. teaches wherein the mobile appliance's signal is a reverse pilot signal (Section 0025).

Regarding claim 16, Stein et al. teaches wherein the mobile information is control information (Sections 0025, 0027, and 0037).

Regarding claim 17, Stein et al. teaches wherein the control information is call set up information or mobile registration process information (Sections 0025, 0027, and 0037).

Regarding claim 26, Stein et al. teaches a method for determining the location of a mobile appliance in a wireless communication system (Section 0007) having plural base stations 104a-c (Fig. 1A) and at least one repeater station 114a (Fig. 1A) for communicating with the mobile appliance 106 (Fig. 1A), wherein each of the at least one repeater station are connected to a respective one of the plural base stations with a communication tether (Section 0024), wherein the at least one translating repeater station relays a mobile appliance's signal on a different channel than the signal transmitted by the mobile appliance (Section 0116), the improvement comprising relaying from the at least one repeater station information regarding the channel of the mobile appliance's signal to a geolocation system and using the information to detect the mobile appliance's signal and calculate the mobile appliance's location (Sections

0007-0009 and 0116-0117). Stein is vague about locating a mobile appliance by a channel.

Kennedy teaches regarding the channel of the mobile appliance's signal to a geolocation system and using the information to detect the mobile appliance's signal and calculate the mobile appliance's location (Section 0005).

Regarding claim 27, Stein et al. teaches wherein the channel is defined by a frequency (Section 0116).

Regarding claim 28, Stein et al. teaches wherein the channel is defined by a time slot (Sections 0027 and 0044-0045).

Regarding claim 29, Stein et al. teaches wherein the channel is defined by a spreading code (Sections 0010 and 0044).

4. Claims 13 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Kennedy et al. (US Pat Appl# 2004/0043775) and further in view of Tekinay (US Pat Pub# 2001/0027110).

Regarding claim 13, Stein et al. teaches a method of determining the location of a mobile appliance in a wireless communication system having plural base stations 104a-c (Fig. 1A) and at least one repeater 114a (Fig. 1A) for communicating with the mobile appliance 106 (Fig. 1A), and a mobile positioning center 130 (Fig. 1A), and wherein the at least one repeater is connected with a communication tether to the base station (Section 0024), and the mobile position center provides mobile information to the geolocation system, the improvement comprising the step of monitoring the communication system with the geolocation system and determining if a target mobile

appliance is served (identification code) by the at least one repeater (Sections 0007-0009 and 0039-0040); and, adjusting the time of arrival of the mobile appliances signal based on the determination if the mobile appliance is being served by the one of the at least one repeaters (Sections 0026-0028, 0035, 0039-0040, and 0047). Stein et al. fails to teach a mobile positioning center and adjusting the time of arrival of the mobile appliances signal.

Kennedy et al. tasking and reporting method and implementation for wireless appliance location systems teaches a mobile positioning center 150 (Fig. 1).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a mobile positioning center as taught by Kennedy et al. into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to find geolocation of a mobile appliance that are under different interface protocol standards (Section 0016).

Stein and Kennedy fail to teach adjusting the time of arrival of the mobile appliances signal.

Tekinay teaches adjusting the time of arrival of the mobile appliances signal (Sections 0011 and 0028).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate adjusting the time of arrival of the mobile appliances signal as taught by Tekinay into a mobile positioning center as taught by Kennedy et al. into Stein et al. method for estimating the

position of a terminal based on identification codes for transmission sources in order to improve the accuracy of a geolocation system (Sections 0007-0008).

Regarding claim 18, Stein et al. teaches adjusting the time of arrival of the mobile signal at the geolocation sensor with known time delays of the at least one repeater and communication tether (Sections 0026-0028, 0035, 0039-0040, and 0047).

Regarding claim 19, Stein et al. teaches the step of adjusting the time of arrival of the mobile signal at another of the plural geolocation sensors with known time delays of another one of the at least one repeater and respective communication tether (Sections 00026-0028, 0035, 0039-0040, and 0047).

Regarding claim 20, Stein et al. teaches the step of accessing with the geolocation sensors the known time delays from a database 130 (Fig. 1A).

Regarding claim 21, Stein et al. teaches wherein the adjusted time of arrivals are used by the geolocation sensors in determining the location of the mobile appliance (Sections 0026-0028, 0035, 0039-0040, and 0047).

5. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Lindqvist (US Pat# 6,166,691).

Regarding claim 22, Stein et al. teaches a method of determining the location of a mobile appliance in a wireless communication system (Section 0007) having plural base stations 104a-c (Fig. 1A) and at least one repeater station 114a (Fig. 1A) for communicating with the mobile appliance 106 (Fig. 1A), wherein each of the at least one repeater station are connected to a respective one of the plural base stations with a communication tether (Section 0024), the improvement comprising the steps of

detecting signals (identification code) from a target mobile appliance on the communication tether (Sections 0008 and 0039-0040) and using a known delay (Section 0009, pretty obvious it accounts for delays in a tether) attributed to the communication tether (Section 0024) and the respective at least one repeater station to determine the location of the target mobile appliance (Sections 0026-0028, 0035, 0039-0040, and 0047). Even though it is obvious, Stein fails to clearly teach using a known delay attributed to a communication tether.

Lindqvist teaches using a known delay attributed to a communication tether (Col. 3 line 66-Col. 4 line 6 and Col. 6 lines 27-40, takes in account of the delay in the tether, i.e. cable lines).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate using a known delay attributed to a communication tether as taught by Lindqvist into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to increase efficiency (Col. 2 lines 21-26).

Regarding claim 23, the combination including Stein teaches detecting signals from the target mobile appliance on another of the at least one repeater station's communication tether and using another known delay (Section 0009, pretty obvious it accounts for delays in a tether) attributed to the another repeater station and the respective communication tether to determine the location of the target mobile appliance (Sections 0028, 0035, 0039-0040, and 0047).

6. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Lindqvist (US Pat# 6,166,691) and further in view of Kennedy et al. (US Pat Appl# 2004/0043775).

Regarding claim 24, Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources teaches the limitations in claim 22. Stein et al. teaches the steps of locating the respective at least one repeater stations based on mobile information parameters received (Sections 0008 and 0039-0040) and using the location of the at least one repeater station to determine the location of the target mobile appliance (Sections 0008 and 0039-0040). Stein et al. fails to teach a mobile positioning center.

Kennedy et al. tasking and reporting method and implementation for wireless appliance location systems teaches a mobile positioning center 150 (Fig. 1).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a mobile positioning center as taught by Kennedy into using a known delay attributed to a communication tether as taught by Lindqvist into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to find geolocation of a mobile appliance that are under different interface protocol standards (Section 0016).

7. Claims 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Kennedy et al. (US Pat Appl# 2004/0043775) and further in view of Hymel (US Pat# 6,246,336).

Regarding claim 30, Stein et al. teaches a method for determining the location of a mobile appliance in a wireless communication system (Section 0007) having plural base stations 104a-c (Fig. 1A) and plural repeaters 114a-c (Fig. 1A), wherein the repeaters relay the mobile appliances signal on the same channel as the channel in which the signal was received (Sections 0024-0025 and 0033), the improvement of using the first signal received from the mobile appliance at each of the plural base stations to determine the location of the mobile appliance (Sections 0008 and 0039-0040). Stein et al. fails to teach a mobile positioning center and disregarding a second signal.

Kennedy et al. teaches a mobile positioning center 150 (Fig. 1) provides mobile information to assist in the location of the mobile appliance (Sections 0026-0027).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a mobile positioning center as taught by Kennedy et al. into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to find geolocation of a mobile appliance that are under different interface protocol standards (Section 0016).

Stein and Kennedy fail to teach disregarding a second signal.

Hymel teaches disregarding a second signal received from the mobile appliance at each of the plural base stations 416 (Fig. 5).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate disregarding a

second signal as taught by Hymel into a mobile positioning center as taught by Kennedy et al. into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to reduce errors (Col. 1 lines 41-55).

Regarding claim 31, Stein et al. further teaches wherein the channel is defined by a frequency (Section 0116).

Regarding claim 32, Stein et al. further teaches wherein the channel is defined by a time slot (Sections 0027 and 0044-0045).

Regarding claim 33, Stein et al. further teaches wherein the channel is defined by a spreading code (Sections 0010 and 0044).

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Bloebaum (US Pat# 6,188,351).

Regarding claim 34, Stein et al. apparatus for estimating the position of a terminal based on identification codes for transmission sources teaches a network overlay geolocation system for locating a mobile in a host wireless communication system (Section 0007), the host wireless communication system having a base station 104a-c (Fig. 1A) and a repeater station 114a (Fig. 1A) connected by a communication tether (Section 0024), the network overlay geolocation system comprising a geolocation sensor (sensing identification code and position of mobile device, Sections 0008 and 0039-0040) attached to the communication tether (Section 0024) between the base station 114a-c (Fig. 1A) and the repeater station 114a (Fig. 1A). Stein fails to clearly teach a geolocation sensor attached to the communication tether.

Bloebaum's improving signal acquisition in a global positioning system receiver teaches a geolocation sensor GPS (Fig. 1a) attached to a base station BTS sub 3 (Fig. 1a).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a geolocation sensor attached to the communication tether as taught by Bloebaum into Stein et al. apparatus for estimating the position of a terminal based on identification codes for transmission sources in order to reduce latency in calculating the user's position (Col. 3 lines 54-63).

9. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Bloebaum (US Pat# 6,188,351) and further in view of Kennedy et al. (US Pat Appl# 2004/0043775).

Regarding claim 35, Stein et al. apparatus for estimating the position of a terminal based on identification codes for transmission sources teaches a base station 104a (Fig. 1a) and a repeater station 114a (Fig. 1a) interconnected by a communication tether (Section 0024); for providing mobile information; a network overlay geolocation system with a geolocation sensor co-located at the base station (sensing identification code and position of mobile device, Sections 0007-0008 and 0039-0040); wherein the tether is connected to the base station at an antenna feed interface (Section 0024). Stein et al. fails to teach a geolocation sensor located on the tether and mobile positioning center.

Bloebaum's improving signal acquisition in a global positioning system receiver teaches a geolocation sensor GPS (Fig. 1a) located on the tether prior to the interface (to a base station BTS sub 3 (Fig. 1a)).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a geolocation sensor located on the tether as taught by Bloebaum into Stein et al. apparatus for estimating the position of a terminal based on identification codes for transmission sources in order to reduce latency in calculating the user's position (Col. 3 lines 54-63).

Both Stein et al. and Bloebaum fail to teach a mobile positioning center.

Kennedy et al. tasking and reporting method and implementation for wireless appliance location systems teaches a mobile positioning center 150 (Fig. 1). Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a mobile positioning center as taught by Kennedy et al. into a geolocation sensor as taught by Bloebaum into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to find geolocation of a mobile appliance that are under different interface protocol standards (Section 0016).

10. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (US Pat Appl# 2003/0008663) in view of Kennedy, Jr. (US Pat# 6,952,158) and further in view of Kennedy, JR. (US Pat Pub# 2003/0069024).

Regarding claim 1, Stein et al. method for determining the location of a mobile appliance in a wireless communication system (Fig. 1A) having plural base stations

104a-c (Fig. 1A) and at least one repeater 114a (Fig. 1A) for communicating with the mobile appliance 106 (Fig. 1A), where the wireless communication system has a network overlay geolocation system (Fig. 1A) operably connected thereto, comprising the steps of determining (identification code) whether a signal received from the mobile appliance by the geolocation system has passed through a first repeater (Sections 0007-0009 and 0039-0040), wherein plural signals are received from the mobile appliance by the geolocation system and said first repeater is a tethered repeater (Section 0024); determining if one of the plural signals has passed through the first repeater is based in part on a difference between the times of arrival of two of the plural signals at the geolocation system (Sections 0026-0028 and 102-104); attaching a tag to the mobile appliance's signal that passes through the first repeater (Sections 0007-0009 and 0039-0040, it is obvious that a tag is associated with a mobile appliance since it normally sends an identifier in order to be able identify the proper phone or else the base station does not know which phone it is communicating with); determining if one of the plural signals has passed through the first repeater is based in part on the geolocation system operating on the tag (Sections 0007-0009 and 0039-0040, again it is pretty well known that a mobile appliance sends an identifier to the base station); and determining the location of the mobile appliance based in part on the determination of whether a signal received from the mobile appliance by the geolocation system has passed through the first repeater (Sections 0007-0009 and 0039-0040). In Section 0028, Stein teaches receiving plurality of signals and using any combination of the signals to do a measurement. It would be obvious that with the plural of signals a

combination could be taking two of the signals and doing a measurement of difference between the two signals. Even though it would be obvious, Stein fails to clearly teach step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system and a known time delay.

Kennedy (US 6,952,158) teaches step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system (Col. 1 lines 16-30, Again, it would be obvious that the identified reference signals could be two signals and determining the time differences of arrival between the two signals); attaching a tag to the mobile appliance's signal that passes through the first repeater (Col. 1 lines 16-30, it is obvious that a tag is associated with a mobile appliance since it normally sends an identifier in order to be able identify the proper phone or else the base station does not know which phone it is communicating with); determining if one of the plural signals has passed through the first repeater is based in part on the geolocation system operating on the tag (Col. 1 lines 16-30, again it is pretty well known that a mobile appliance sends an identifier to the base station).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate step of determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system as taught by Kennedy into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to determine a mobile device without it having to be in the same communication network and does not need to be synchronized (Col. 2 lines 53-63).

Stein and Kennedy fail to teach a known time delay.

Kennedy (US 2003/0069024) teaches a time difference being approximately equal to a known time delay (Abstract and Section 0023, it keeps a record of known delay times associated with locations so when it tries to locate another terminal it can compared the known delay time to the actual delay time in order to locate a mobile appliance).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate step of a known time delay as taught by Kennedy into determining based in part on a difference between the times of arrival of two of the plural signals at the geolocation system as taught by Kennedy into Stein et al. method for estimating the position of a terminal based on identification codes for transmission sources in order to be more efficient (Section 0010).

Response to Arguments

Applicant's Remarks	Examiner's Response
Regarding claim 1, "Therefore, a prima facie case of obviousness has not been established since the references alone or in combination fail to disclose the limitation of 'determining if one of the plural signals has passed through the first repeater is based in part on a difference between the	Stein teaches determining a location through a repeater system (see above rejection). Kennedy teaches determining location based on times of arrival of two of the plural signals (Col. 1 lines 16-30 "determine time differences of arrival of the identified reference signals by

times of arrival of two of the plural signals at the geolocation system.'"	conventional TDOA methods"). All limitations are taught by the combination of Stein and Kennedy.
Regarding claim 12, "Absent a teaching for this claim limitation a prima facie case of obviousness cannot be made. Stein, as relied upon by the Office, does not teach the limitation, nor does Kennedy."	See previous examiner's response to this remark filed on 3/11/2008.
Regarding claim 26, "Stein, however, discloses transmitting the identification code on a different channel, not the repeated signal (see [0116] and [0117]). However, there is no disclosure of the repeater sending the channel over which it received the mobile appliance's signal to the geolocation system as required in the claim."	In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Again, Stein teaches a locating a device through a repeater and Kennedy further teaches locating a device through a channel (Section 0005). Therefore all limitations are taught by the combination.

Regarding claim 26, "Kennedy also provides no support for the repeater transmitting the mobile's channel."	See above response.
Regarding claim 13, "As such Tekinay only provides a teaching of adjusting time of arrival based scattering, not based on a determination that the signal passed through a repeater as required in the claim."	Again, the combination with Stein teaches a repeater. Tekinay is just used to teach adjusting the time of arrival of a signal (see above rejection for details). Therefore all limitations are taught.
Regarding claim 23, "Stein is silent with respect to using more than one repeater in locating the mobile."	It is pretty well known that the principals taught by Stein can be implemented in a plurality of repeaters. In section 0121 of Stein it teaches plural repeaters in a system.
Regarding claim 30, "The Hymel reference has nothing to do with geolocation. The second signal disregarded in operation 416 of FIG. 5 of Hymel is directed to a radio signal used to transmit advertisement related messages. Nowhere does Hymel disclose disregarding a	See previous examiner's response to this remark filed on 3/11/2008.

second signal for location determination. The Office has failed to establish a prima facie case of obviousness. The rejection must be withdrawn."	
Regarding claim 34, "The Office states that Bloebaum "teaches a geolocation sensor GPS (Fig. la) attached to a base station BTS sub 3 (Fig. la.)" This however is not a teaching of: "...a geolocation sensor attached to the communication tether between said base station and said repeater station", as recited in Claim 34."	See previous examiner's response to this remark filed on 3/11/2008.
Regarding claim 35, "Furthermore, a GPS sensor would unlikely ever be attached to a communication tether, for GPS sensors sense satellite signals not wireline signals. The rejection is improper and must be withdrawn."	See previous examiner's response to this remark filed on 3/11/2008.
Regarding claim 37, "As discussed with regards to Claim 1, Kennedy 158 does not teach this "determining" step and thus the rejection is improper and must be	See above response to claim 1.

withdrawn."	

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Wendell/
Examiner, Art Unit 2618

/Nay A. Maung/
Supervisory Patent Examiner, Art Unit 2618

9/16/2008